Sustainability at Fort Carson

Visit by JSEM Participants

Fort Carson, Colorado

21 March 2006

2002 Sustainability Conference

'Aggressive Goals'

Reduce operating costs, preserve training lands, enhance well-being, partner with community…so Installation better supports mission

Message from the Garrison Commander
In September of 2002, we brought together Fort Carson personnel with Department of the Army and subordinate headquarter representatives, personnel from other local military installations, civic leaders, members of the local and regulatory communities, and the public to discuss shared resources and plan for their wise use. At that time, 25-year goals were established to address the human and natural resource challenges that face Fort Carson and surrounding communities. Twelve aggressive goals were identified, and I challenged the attendees to develop Five-Year Plans, identifying initiatives, steps and resources for each goal. This document is the fulfillment of that challenge.
The methods described in this Five-Year Plan to meet Fort Carson's sustainability goals will be the first steps in a dynamic process. Be diligent and organize your time and resources to support the Installation's Sustainability goals and Five-Year Objectives. Special sustainability funding will not be likely. We must begin immediately to program and budget for projects that support sustainability. Projects and activities incorporating sustainable elements and a life cycle payback of five years or less will be given top priority. Other projects related to this plan, especially those that demonstrate leadership, environmental stewardship, partnership and community outreach will also be given priority.
The Installation's mission includes training, mobilizing, deploying and sustaining the combat-ready, multi-component, integrated forces of the 7th Infantry Division and Fort Carson. Providing a caring environment in a climate of cooperation and partnership with civilian and military neighbors is part of that mission. The long-term accomplishment of this mission is supported by the goals of this Sustainability Five-Year Plan. Due to ever-increasing growth in Colorado, decreasing military budgets, changing technologies, and greater environmental restrictions, issues that will affect this installation in 25 years must be addressed now by applying the principles of sustainability in all of our decisions and actions. Through solid planning and adherence to The Natural Step system conditions, we may avoid issues that have the potential to impede our mission in the future.
The real work begins now, with each one of us responsible for the future. We will track, publish, and hold ourselves accountable for progress in accordance with this Sustainability Plan.
Garrison Commander

- **Renewable Resource Use and Water Purchase**
- **Reduce Automobile Dependency**
- **Community of One**
- **Regional Partnerships**
- **Zero Hazardous Air Pollutants**
- **Sustainable Master Plan**
- **Platinum Standard Buildings**
- **Sustainability Training**
- **Sustainable Procurement**
- **Zero Waste Disposal**
- **Sustainable Training Ranges**
- **Adopt a SEMS**

Follow-on Sustainability Conferences

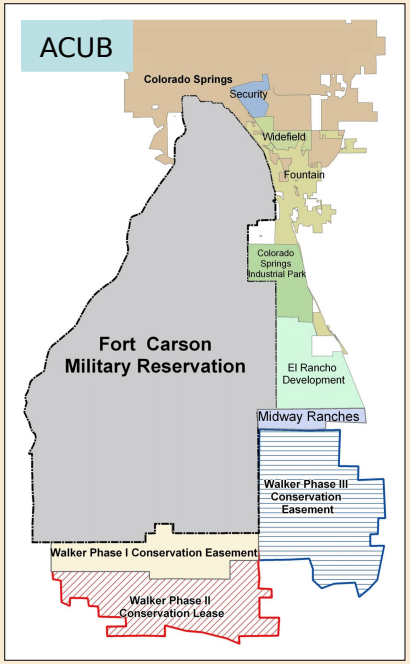
2003

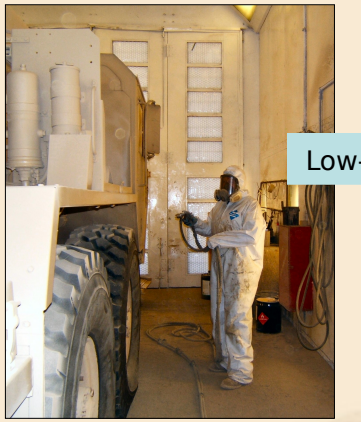
2004

2005

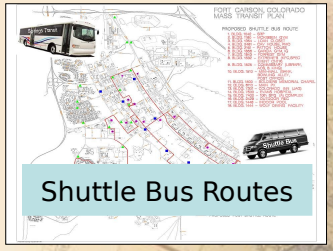
Successes at Fort Carson

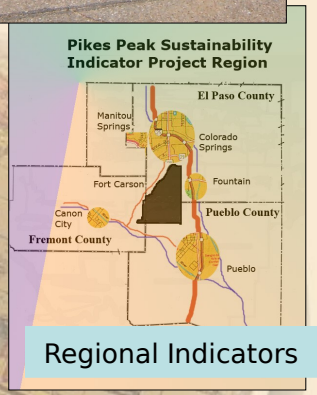
Fort Carson SEMS Website




Low-VOC paints

SEMS Awareness Training


Shuttle Bus Routes



Regional Indicators

Alternative Energy

Reclaimed waste water

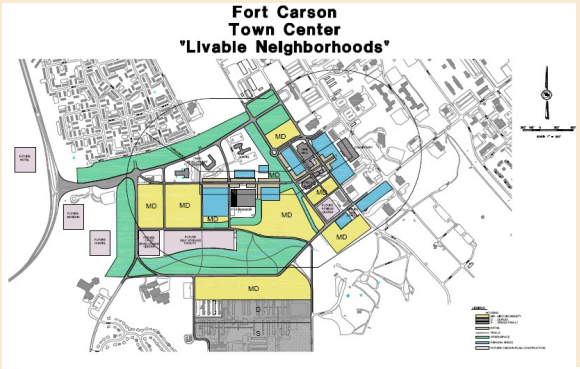
Safer, improved motor pool operations

Successes at Fort Carson

Deconstruction

Recycling

Smart Growth Initiatives



ster Planning Strategy
Smart Growth Goals
Fort Carson, Colorado

The following ten goals are used to evaluate facility sitting layouts and infrastructure development decisions at Fort Carson and to assist decision makers in understanding the various positive and negative impact on future facility opportunities:

- Promote military cohesiveness and efficiency in training
- Minimize development of open spaces
- Improve walk-ability of installation neighborhoods
- Site facilities to promote mass transit opportunities
- Site facilities based on analysis of interrelationships among users of facilities to adjacent facilities
- Create high-density mixed-use areas
- Site facilities to leverage existing utility infrastructure and future renewable energy opportunities
- Low impact development
- Encourage stakeholder collaboration in development decisions
- Use full life cycle cost analysis instead of first cost criteria in making development decisions.

Barracks renovations

‘GOLD’ Clubhouse

Army Support for Sustainability

Army's Sustainability Strategy - 2004

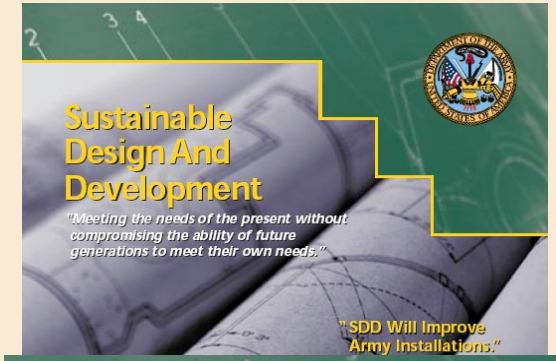
The United States Army has long recognized that our mission is only accomplished because America entrusts us with its most precious resources – its sons and daughters. It is our obligation to ensure that our Soldiers today – and the Soldiers of the future – have the land, water, and air resources they need to train; a healthy environment in [illegible]merican people.

[illegible]Mission – Secure the [illegible]o meet its mission today [illegible]tegy and a paradigm that [illegible]while strengthening [illegible]quip, train, and deploy our [illegible]orrow with sound [illegible]e past decades that [illegible]e that we will be able [illegible]kers if we are to benefit [illegible]ility: mission, [illegible]ust implement effective [illegible]quality of life in a manner

The Army Strategy for the Environment does not pretend to dictate all the answers. It is only the starting point that commits Army leaders at all levels to certain goals and challenges them to develop innovative methods to achieve these goals. Achieving the vision outlined in this strategy will require a deep and personal commitment from every member of the Army team – every leader, every Soldier, every civilian, and every family member. For the Army to be successful on its quest toward sustainability we must all do our part to *Sustain the Mission, Secure the Future!*

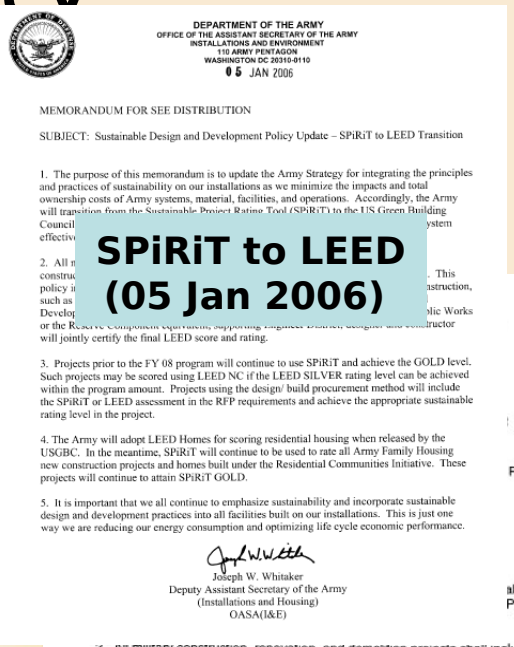
Peter J. Schoomaker
General, United States Army
Chief of Staff

R.L. Brownlee
Acting Secretary of the Army


Sustainable Design And Development
"Meeting the needs of the present without compromising the ability of future generations to meet their own needs."
"SDD Will Improve Army Installations."

Think Sustainable...
Executive Order 13123, 3 June 99, — Federal leadership in Energy Management — DoD develop SDD principles.
" The Army has led the nation in building an environmentally friendly and energy
" SDD is smart business. It protects Army resources and our
installations & facilities."
Major General Robert Van Antwerp, Assistant Chief of Staff for Installation Management
Office of the Assistant Secretary of the Army for Installations & Environment
" I recognize the right and duty of this generation
Design, Deliver, Maintain Sustainably...
The Army is looking for Sustainable Champions with the SPiRiT to synergize leading-edge technologies and innovative ideas into the Army's installation's facilities lifecycle process.
Executive Order 13123
Federal Leadership in Energy Management
— DoD develop SDD principles.
SPiRiT Users Say:
"This design process offers us an excellent method to provide responsible stewardship of our natural, human and financial resources."
"... these practices are an investment in our future... we can meet today's need and provide for future generations."
"Glad to see a definitive standard being set."
SPiRiT
SUSTAINABLE PROJECT RATING TOOL
"A self-assessing system designed to help the Army achieve facilities that meet the needs of current missions, and utilize new technologies and innovative sustainability concepts in the design and construction process to improve the quality of facilities we build to support our soldiers' readiness, training and well-being."
"The Gateway to SDD"
For More Information
POINT OF CONTACT AT USACE
POINT OF CONTACT AT OACSIM
A Guide for Army Garrison Commanders Facility Planners and Project Delivery Teams
Presented by ACSIM & USACE

SDD - 2000


DEPARTMENT OF THE ARMY
OFFICE OF THE ASSISTANT SECRETARY OF THE ARMY
INSTALLATIONS AND ENVIRONMENT
110 ARMY PENTAGON
WASHINGTON DC 20310-0110

05 JAN 2006

MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: Sustainable Design and Development Policy Update – SPiRiT to LEED Transition

1. The purpose of this memorandum is to update the Army Strategy for integrating the principles and practices of sustainability on our installations as we minimize the impacts and total ownership costs of Army systems, material, facilities, and operations. Accordingly, the Army will transition from the Sustainable Project Rating Tool (SPiRiT) to the US Green Building Council [illegible]ystem effectiv[illegible]

2. All n[illegible] construc[illegible] This policy i[illegible]astruction, such as [illegible] Develop[illegible]lic Works or the Reserve Component equivalent, supporting engineer district, designer and constructor will jointly certify the final LEED score and rating.

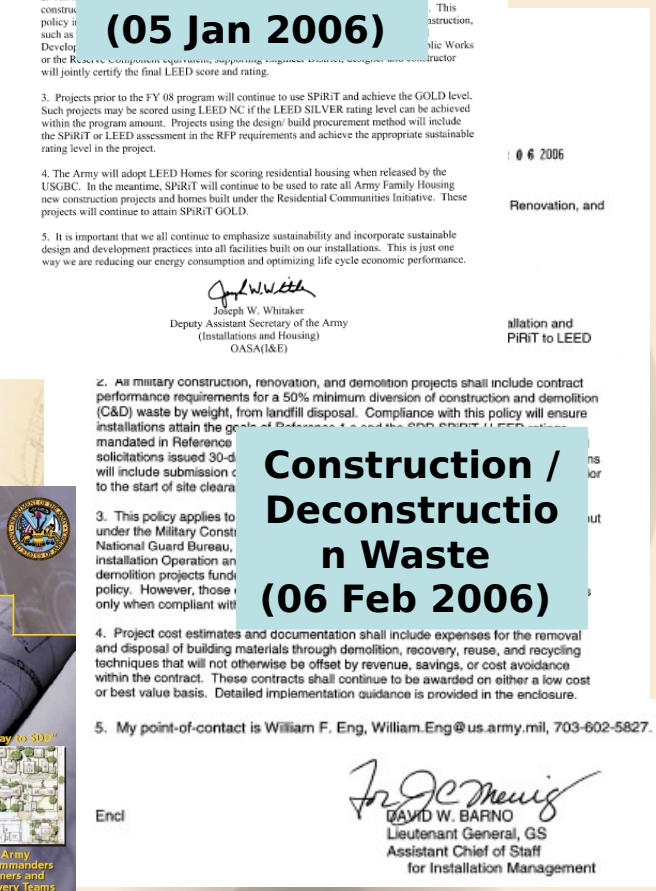
3. Projects prior to the FY 08 program will continue to use SPiRiT and achieve the GOLD level. Such projects may be scored using LEED NC if the LEED SILVER rating level can be achieved within the program amount. Projects using the design/ build procurement method will include the SPiRiT or LEED assessment in the RFP requirements and achieve the appropriate sustainable rating level in the project.

4. The Army will adopt LEED Homes for scoring residential housing when released by the USGBC. In the meantime, SPiRiT will continue to be used to rate all Army Family Housing new construction projects and homes built under the Residential Communities Initiative. These projects will continue to attain SPiRiT GOLD.

5. It is important that we all continue to emphasize sustainability and incorporate sustainable design and development practices into all facilities built on our installations. This is just one way we are reducing our energy consumption and optimizing life cycle economic performance.

Joseph W. Whitaker
Deputy Assistant Secretary of the Army
(Installations and Housing)
OASA(I&E)

SPiRiT to LEED (05 Jan 2006)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Renovation, and

allation and PiRiT to LEED

2. All military construction, renovation, and demolition projects shall include contract performance requirements for a 50% minimum diversion of construction and demolition (C&D) waste by weight, from landfill disposal. Compliance with this policy will ensure installations attain the goals of Reference [illegible] and the SPiRiT LEED rating[illegible] mandated in Reference [illegible] solicitations issued 30-d[illegible]ns will include submission [illegible]or to the start of site clearan[illegible]

3. This policy applies to [illegible]ut under the Military Constr[illegible] National Guard Bureau, [illegible] installation Operation an[illegible] demolition projects funde[illegible] policy. However, those [illegible] only when compliant with[illegible]

4. Project cost estimates and documentation shall include expenses for the removal and disposal of building materials through demolition, recovery, reuse, and recycling techniques that will not otherwise be offset by revenue, savings, or cost avoidance within the contract. These contracts shall continue to be awarded on either a low cost or best value basis. Detailed implementation guidance is provided in the enclosure.

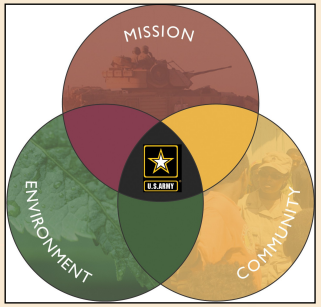
5. My point-of-contact is William F. Eng, William.Eng@us.army.mil, 703-602-5827.

Encl

DAVID W. BARNO
Lieutenant General, GS
Assistant Chief of Staff
for Installation Management

Construction / Deconstruction Waste (06 Feb 2006)

Challenges



- Military culture
- Transitional nature of leadership
- Change in development patterns
- Tying funds to life cycle costing
- Everyone's challenge…not just the environmental office